

Title (en)
BUTTON-TYPE SECONDARY BATTERY

Title (de)
SEKUNDÄRBATTERIE VOM KNOPFTYP

Title (fr)
BATTERIE SECONDAIRE DU TYPE BOUTON

Publication
EP 4120451 A4 20240327 (EN)

Application
EP 21768736 A 20210309

Priority
• KR 2021002875 W 20210309
• KR 20200030313 A 20200311
• KR 20210022862 A 20210219

Abstract (en)
[origin: EP4120451A1] The present invention relates to a button-type secondary battery comprising: a cup which has an opened upper side and in which an electrode assembly and an electrolyte are mounted; and a top plate which is coupled to an upper end of the cup to close the opened upper side of the cup and in which a through-hole is formed; a positive electrode terminal comprising a protrusion having a diameter capable of being inserted into the through-hole and a hook having a diameter greater than that of the through-hole, wherein the protrusion is inserted into the through-hole so that the hook is disposed outside or inside the cup; and a gasket inserted to insulate a portion at which the protrusion and the hook are in contact with the top plate when the protrusion of the positive electrode terminal is inserted into the through-hole, wherein the gasket bonds the positive electrode terminal to the top plate. According to the present invention having the above technical characteristics, since the positive electrode terminal to the top plate are bonded to each other through the gasket that seals the gap between the positive electrode terminal and the top plate, the riveting of the positive electrode terminal or the coupling structure similar to the riveting may be eliminated, and thus, the overall thickness of the secondary battery may be thinner.

IPC 8 full level
H01M 50/172 (2021.01); **H01M 10/04** (2006.01); **H01M 50/109** (2021.01); **H01M 50/153** (2021.01); **H01M 50/169** (2021.01); **H01M 50/181** (2021.01); **H01M 50/183** (2021.01); **H01M 50/184** (2021.01); **H01M 50/188** (2021.01); **H01M 50/193** (2021.01); **H01M 50/543** (2021.01); **H01M 50/559** (2021.01)

CPC (source: EP US)
H01M 10/04 (2013.01 - EP); **H01M 50/109** (2021.01 - EP US); **H01M 50/153** (2021.01 - EP); **H01M 50/169** (2021.01 - US); **H01M 50/181** (2021.01 - EP); **H01M 50/184** (2021.01 - EP); **H01M 50/188** (2021.01 - EP US); **H01M 50/193** (2021.01 - EP); **H01M 50/559** (2021.01 - EP); **H01M 50/566** (2021.01 - US); **H01M 50/169** (2021.01 - EP); **H01M 50/171** (2021.01 - EP); **Y02E 60/10** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

Citation (search report)
• [XY] CN 105958109 A 20160921 - HUIZHOU EVE ENERGY CO LTD
• [YA] US 2011278803 A1 20111117 - YAMAZAKI TAKAHIRO [JP], et al
• [YA] US 2005206093 A1 20050922 - UTSUNOMIYA TADASHI [JP], et al
• [Y] JP 2008305646 A 20081218 - TOSHIBA CORP
• See also references of WO 2021182835A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 4120451 A1 20230118; **EP 4120451 A4 20240327**; CN 115210942 A 20221018; JP 2023511884 A 20230323; TW 202141840 A 20211101; US 2023055864 A1 20230223; WO 2021182835 A1 20210916

DOCDB simple family (application)
EP 21768736 A 20210309; CN 202180009897 A 20210309; JP 2022544047 A 20210309; KR 2021002875 W 20210309; TW 110108118 A 20210308; US 202117796701 A 20210309